W. L. Devereaux, "Slight Climate and Cicindela Faunal Change and extinction." In the absence of the author read by title only.

C. Abbott Davis, "Modern Methods of Mounting Insects." In the absence of the author read by title.

The meeting then adjourned to a smoker at which the Society and its visitors were the guests of the Cambridge Entomological Club, and had a most enjoyable time.

J. CHESTER BRADLEY, Secretary-Treasurer.

## MINUTES OF THE THIRD MEETING.

The third meeting of the Entomological Society of America was held in the Zoological Building of the University of Chicago, December 30-31, 1907, in affiliation with the American Association for the Advancement of Science and allied societies.

The meeting was called to order by the First Vice President, Dr. Fletcher, at ten o'clock on Monday, December 30, 1907, and immediately adjourned until after the conclusion of the general session of the American Association for the Advancement of Science.

At eleven o'clock the meeting was again called to order, Dr. Fletcher in the chair.

Among those present during the sessions were: C. C. Adams, W. Barnes, C. E. Bartholomew, J. W. Folsom, G. M. Bentley, C. Betten, F. C. Bishop, D. Bodine, J. C. Bradley, W. E. Britton, C. T. Brues, L. Bruner, A. F. Burgess, H. E. Burke, J. H. Cook, M. T. Cook, C. R. Crosby, J. J. Davis, J. H. Emerton, E. P. Felt, H. T. Fernald, J. Fletcher, S. A. Forbes, W. J. Gerhard, J. E. Guthrie, J. L. Hancock, C. A. Hart, T. J. Headlee, W. E. Hinds, I. D. Hood, L. O. Howard, W. D. Hunter, F. Johnson, A. Kwiat, F. E. Lutz, H. H. Lyman, W. S. Marshall, D. Moulton, W. A. Nason, J. G. Needham, H. Osborn, E. M. Patch, J. L. Phillips, A. L. Ouaintance, W. A. Riley, A. G. Ruggles, E. D. Sanderson, F. Sherman, Jr., J. B. Smith, R. I. Smith, H. E. Summers, T. B. Symons, W. L. Tower, R. A. Vickery, L. B. Walton, F. L. Washburn, H. E. Weed, H. F. Wickham, C. F. C. Riley, S. W. Williston; James Zetek, B. H. Guilbeau, J. F. Abbott, G. E. Sanders, G. D. Shafer, A. G. Hammar, A. B. Wolcott, E. L. Worsham, W. Newell, I. C. Hambleton, George G. Ainslie, G. P. Weld, J. E. Guthrie, and others.

The meeting proceeded directly to the reading and discussion of papers.

Notes on the Geographical Affinities of the Coleoptera of the Isle Royale, Lake Superior. (An outline of the relations of the Isle Royale beetle fauna to that of northern North America. General remarks on the major faunal centers based on beetles.) C. C. ADAMS.

Dr. Smith asked if there was not a large Carabid element present as Mr. Schwarz had found a very large proportion of these and of Staphylinidæ along the shores of Lake Michigan, and from the way Mr. Adams said the fauna had been derived one would expect the same on the Isle Royale. Mr. Adams said that that was the case. Dr. Fletcher asked if Mr. Adams had applied names to his areas. Mr. Adams had not, but he did not accept the zonal divisions of Merriam, since they did not hold for beetles.

Some Problems in Nomenclature. (A brief discussion of the validity of names, particularly those bestowed on Insect galls and larvæ). Dr. E. P. FELT.

Prof. Hart asked what should be done with galls from which the adult insects were unknown. Dr. Felt would give them tentative names. Dr. Needham said that names of galls were of a different sort from those bestowed upon plants and animals and should not enter our zoological systems. Mr. Bradley added that English names, if used for galls, would avoid the confusion that the introduction of Latin names causes. He objected to even the tentative use of binomials.

Stercoscopic Photography applied to Entomological Subjects. PROF. F. L. WASHBURN.

Discussion by Messrs. Hinds and Summers. Mr. Bradley mentioned a very simple device which Mr. Crosby and he had used in obtaining good stereoscopic effects in photographing insects. It consisted of an ordinary camera having a brass diaphragm that could be reversed, and the aperture made eccentric. One exposure was made with the aperture on one side, and another with the aperture on the opposite side, the result giving an excellent stereoscopic effect.

Life history and habits of the Dimorph of Chaitophorus negundinis. Thos. (Previous knowledge of the dimorph. Comparison with a similar dimorph in Europe. Life history; appearance in summer. Part played in the survival of the species, etc.) J. J. DAVIS.

28

Discussion by Dr. Headlee and Dr. Fletcher.

Is Mutation a factor in the production of Vestigial Wings among Insects? (A summary of some observations among insects belonging to various groups, where the evolution of wingless or subapterous species can be traced within a group). C. T. BRUES. (To be published in Jour. N. Y. Ent. Soc.)

Mr. Hinds asked if Mr. Brues had paid attention to the winged condition in Thysanoptera. There one finds dimorphism due to season. There is no relation between the short winged and entirely apterous forms, but the same species will show short and long winged individuals. The paper was further discussed by Messrs. Smith, Bruner and Cook.

The meeting then adjourned until 1:30.

The afternoon session was opened by the reading of a paper by Dr. W. A. RILEY, entitled, *External Wing Buds in the Larva of Holometabolous Insects*. (A brief discussion of the general subject and recorded insects, and a report of an unrecorded instance.) (Published Entomological News, March, 1908.)

Dr. Needham said that he had never found any trace of external wings in the Larva of Diptera of Neuroptera that he had examined.

Notes on the Nervous System of the Cordyalis larva. A. G. HAMMAR.

Dr. Riley remarked that such work showed the need for careful studies of the nervous system of insects. He suggested that by tracing out the proper nerve Mr. Hammar might be able to locate the salivary gland, which no one had yet succeeded in doing. Dr. Smith asked Mr. Hammar for his technique. Fresh material was used hardened in Gilson's fluid and stained in picric acid. The incision is made on the dorsal side, and the dissection made under water, the larva being pinned to cork.

In the absence of the author, a paper by Dr. A. Petrunkevitch entitled, "*The Sense of Sight in Spiders*," was read by title only. (To be published in Journal Exp. Zool.)

Dr. Riley moved that nominations for President and First and Second Vice President, Secretary-Treasurer and the six additional members of the Executive Committee be by ballot, to be signed and handed in to the Secretary before 11 A. M., Tuesday, and that from the names so placed in nomination, the four leading each list be finally balloted upon, except that in the case of the Executive Committee, the first twelve be considered. Seconded and after discussion carried.

The meeting then adjourned until after the conclusion of the address by Vice President Conklin before Section F., of the American Association for the Advancement of Science.

Upon reconvening, Mr. C. R. Crosby read a paper entitled, "Notes on a Chalcid infesting an Apple-seed."

Prof. Bruner said that the species certainly was of much importance from a horticultural standpoint. Dr. Smith said he thought they might have been imported. Mr. Crosby said he had found them generally distributed over the state of New York. Dr. Howard felt certain that they had been imported. The discovery that Syntomaspis is phytophagous is one," he said, "of very great interest." Some time ago Mr. Banks had called the speaker's attention to the work of Motschulsky referred to by Mr. Crosby, and later on visiting Crimea he had seen Motschulsky's specimens. An assistant in the U. S. Bureau of Entomology has found what are probably the larvæ of this species in the seeds of an imported Russian haw. Dr. Fletcher said that in the past many apple seeds had been imported from Russia, and that he thought the insects might have entered in that way.

DR. J. G. NEEDHAM read a paper entitled, "The New Biological Field Station at Cornell University."

"*The mouth parts and phylogeny of the Siricoidea*." J. CHES-TER BRADLEY. Discussion by Dr. Smith and Dr. Riley.

"Is Vespa borealis an Inquiline?" (An account of finding males and females of Vespa borealis living together apparently on friendly terms.) DR. JAMES FLETCHER.

Discussion by Mr. Brues and Dr. Smith. Dr. Fernald said that no worker of borealis had been described, and that two European species of Vespa were known to have a similar habit.

"On certain Structural Characters of the genus Catocala." W. BEUTENMULLER. Read by title.

"The Entomological Society of America and its work." H. H. LYMAN.

"The Habits of the Crane-fly Dicranomyia defuncta O.S." Dr. J. G. NEEDHAM.

"The Life history of a Bee fly, Spogostylum anale. Say." (The larvæ parasitic on the larvæ of a tiger beetle, Cicindela scutellaris. Say. Eggs laid in July or August; larvæ on the last larval stage of the host in Spring; when host makes its pupal cell and the internal parts become semi-fluid, the parasite moults and grows very rapidly completely destroying the host, (July). The pupa digs toward the surface by wriggling movements of the body, and the adult emerges when the surface is reached). V. E. SHELFORD. Read by title.

"*Circumfili in the Cecidomyiidæ*." (A discussion of the morphology and taxonomic value of these organs). DR. E. P. FELT.

Dr. Riley thought that Dr. Felt's second explanation was correct,—that the circumfili are modified hairs.

"Ancestral Ephemeridæ from the American Permian formation." (A group of true Ephemeridæ obtained from the Permian of Kansas. The earliest known true Ephemerids, and with the exception of a few Russian specimens, all that are known from the Permian. They present a distinct early stage in the evolution of the Ephemerid line). DR. E. H. SELLARDS. Title only.

Mr. Kwiat described the collecting grounds around Chicago.

Mr. J. H. Cook read a paper on the habits of the larvæ of Lycæna.

The meeting then adjourned until 11 o'clock on the following day.

At eight P. M. the annual address before the Society was given in the botanical lecture room of the University by Prof. Herbert Osborn, entitled, "The Habits of Insects as a Factor in Classification."

Afterwards the Society and their guests were entertained by the Entomological Section of the Chicago Academy of Science at a very enjoyable smoker.

BUSINESS MEETING.

On Tuesday, Dec. 31, at 11 A. M., the annual business meeting was held, Dr. Fletcher in the chair.

The Secretary read the minutes of the last annual meeting, also of the special meeting held in Boston in August. These were adopted as read.

The Secretary read a report from the Executive Committee embracing statement of accounts, the election of members and Fellows at the last meeting of the Committee, and a series of resolutions on publication adopted by the Committee from the report of their committee on publication.

These items were as follows:

[Vol. I,

EXPENDITURES.	RECEIPTS.
Stamps	Fees for 1907
Total\$270.67 129.38	
Total\$400.05	Total
LIABILITIES. Fees for 1908 of 7 members\$ 7.00 Fees due upon election of 5 persons	ASSETS (CASH.) Refund on expressage\$ 3.00 Dues for 1907 of 39 members. 39.00 Balance from one member. 10 Total assets. 42.10 Liabilities
Accounts examined and found correct.	
[Signed.]	H. Osborn, J. B. Smith.

## Financial Statement, December 31, 1907.

ELECTION OF THE FOLLOWING TO MEMBERSHIP.

G. E. Sanders, Urbana, Ill.; G. D. Shafer, Ithaca, N. Y.; J. A. Nelson, Ithaca, N. Y.; A. G. Hammar, Ithaca, N. Y.; Wm. H. Blatchley, Indianapolis, Ind.; A. B. Wolcott, Chicago, Ill.; E. L. Worsham, Atlanta, Ga.; R. W. Harned, Agricultural College, Miss. Alex. Petrunkevitch, Short Hills, N. J.; T. D. A. Cockerell, Boulder, Colo.; W. Newell, Baton Rouge, La.; J. C. Hambleton, Columbus, O.; George Ainslee, St. Anthony Park, Minn.; G. P. Weld, Evanston, Ill.

## ELECTION OF THE FOLLOWING FELLOWS.

Mark Vernon Slingerland; Justus Watson Folsom; William Joseph Holland; Clarence Preston Gillette; Henry Clinton Fall; Charles Lester Marlatt; Lawrence Bruner.

## THE FOLLOWING RESOLUTIONS ON PUBLICATION.

I. That the Society undertake a publication to be called Annals of the Entomological Society of America, to be issued in quarterly fascicles.

2. That it include only papers of importance or marked merit, and that each be issued and bound separately as well as in facsicles so that each paper may be sold separately.

3. That proceedings of the meetings be included either at the beginning or the end of each volume and form one separate which is to be sent to all members of the Society.

4. That a subscription price of One Dollar in addition to the membership fee be charged to members for the Annals and that the subscription price to non-members, libraries, etc., be Three Dollars.

5. That an Editorial Board be selected by the Executive Committee and that this Board shall select one of its members as Managing Editor who with his Associates shall be responsible for the selection of material to be published.

6. That if possible some one living in a suitable location and who can undertake the work of Managing Editor for a series of years, be selected for this position.

7. That details not covered in this report are to be determined by the Editorial Board.

8. That actual publication under the provisions of this report be inaugurated as soon as possible.

Moved by Dr. Smith and seconded by Prof. Sanderson that the report be adopted. Dr. Needham moved to amend, to adopt report except the articles on publication. Motion carried as amended. Dr. Howard moved the adoption of the resolutions on publication, and this was seconded.

Dr. Needham asked where the funds were coming from. Prof. Osborn stated that the subscription plan embodied in the report was counted upon to provide these, but that the date of starting publication was left to the judgment of the committee, and need not be done until the funds were guaranteed. Prof. Sanderson asked what estimate was placed upon the cost of publication. Prof. Osborn said, roughly, \$1.000. Dr. Smith said that there were no obligations imposed as to size, and that members would receive the proceedings of the meetings without extra cost, but would pay for the remainder. The idea was the outcome of the almost universal demand for something of the sort to hold the membership together. In response to question from Mr. Hammar, the Chair stated that it was provided that the Executive Committee should elect the Board of Editors, and Dr. Smith remarked that they need not be members of the Committee, nor necessarily Fellows of the Society.

The motion to adopt the resolution on publication embodied in the report of the Executive Committee was then passed.

The Secretary announced the death of E. H. Davis, of Honolulu, a charter member of this Society.

Dr. Fernald moved:

1. That the Entomological Society of America hereby endorses the Code of Nomenclature adopted by the International Zoological Congress as the Code which should be used by the members of the Society so far as it can be applied.

2. That cases not covered by this Code, which may be presented to the Society for consideration, be referred to a Standing Committee on Nomenclature to consist of three members, one member of which shall be elected each year for a term of three years, and the opinions of this committee on cases referred to them, shall be reported to the Society at the first annual meeting subsequent to their reference to the Committee.

Seconded by Dr. Smith.

Dr. Fernald stated that we could either individually or as a body present such questions to the Zoological Congress.

Mr. Bradley moved to amend by dropping the second clause, "because," he said, "Entomology should not be treated as distinct from Zoology in general, and because the commission on Nomenclature of the Zoological Congress is the sufficient and proper body before which to bring such questions for decision."

Prof. Fernald stated that the reports of the Commission on Nomenclature of the International Congress were greatly delayed by the fact that the congress met only once in three years and by the rule that a question must be presented at least a year before the meeting at which it is to be considered. It was not the intention of the motion that the Committee should act in opposition to or independently of the Commission on Nomenclature, but that it should be instrumental in voicing the needs of entomology before that body, which should be the final court of reference.

With that explanation the amendment was withdrawn. Resolution passed. Prof. Washburn moved that it is the sense of this meeting that fellowship for the present be limited to ten per cent. of the membership.

Dr. Smith said that the Executive Committee had experienced much difficulty in drawing the line in regard to fellowship. They hoped for some guidance from the Society and a certain limit beyond which they might not pass.

Prof. Summers believed in limiting the number as far as possible. Dr. Felt pointed out that the constitution seems to indicate that a Fellow should be elected on account of strong merit, and that a definite number would not help matters. Several of 'our present Fellows were unavailable for office and we had but few from whom to select officers.

Dr. Fletcher said that he felt we needed more active men on the list.

Dr. Smith said that there were other men in the Society who were fit to be Fellows, but that the question to decide was whether the list should be a large one from which to draw officers, or a small one for honor.

Prof. Sanderson suggested that some of the present list might be made Honorary Fellows.

Mr. Bradley asked whether a constitutional amendment, providing that members of the Executive Committee need not be drawn from the list of Fellows, would be of any aid.

Dr. Felt said that he thought Honorary Fellows should be very limited and a great honor, but that ordinary Fellows were more like those of the A. A. S. and that there was strength in a large number.

Division was called upon Dr. Washburn's motion, and upon show of hands the motion was declared passed.

The Chairman read to the Society a part of a letter from Dr. S. H. Scudder of Cambridge, in which he said, "Please bear my greetings to my good Entomological friends at the Chicago meeting of the Entomological Society of America." The keen interest felt in the Society by Dr. Scudder was mentioned.

The following nominations for officers received in accordance with Dr. Riley's motion, were posted.

President, Dr. J. B. Smith, Dr. Wheeler, Dr. L. O. Howard, Dr. Fletcher.

*First Vice President*, Dr. Smith, Dr. Skinner, Dr. Wheeler, Dr. Fletcher.

Second Vice President, Dr. Forbes, Dr. Folsom, Dr. Bethune, Dr. J. B. Smith.

Secretary-Treasurer, Dr. Needham, Mr. Adams, Mr. Bradley. Executive Committee, Drs. Needham, Calvert, Folsom, Fletcher, J. B. Smith, Skinner, Profs. H. Osborn, Comstock, Kellogg, Gillette and Bruner, and Mr. F. M. Webster.

The ballots were then taken and the meeting adjourned until after lunch, Prof. Summers and Dr. Betten acting as tellers.

At 1:45 the meeting was again called to order. The Secretary announced that the following officers had been elected:

President, Dr. W. M. Wheeler.

First Vice President, Dr. J. B. Smith.

Second Vice President, Rev. Prof. C. J. S. Bethune.

Secretary-Treasurer, J. C. Bradley.

Additional members of the Executive Committee:—Prof. J. H. Comstock, Dr. J. G. Needham, Dr. P. P. Calvert, Prof. Herbert Osborn, Mr. F. M. Webster, Prof. V. L. Kellogg.

Dr. Smith offered the following resolution which was adopted: *Resolved*, that the thanks of this Society be extended to the University of Chicago for the accommodations furnished and courtesies offered to it, and

*Resolved*, further, that the thanks of this Society be extended to the Entomological Section of the Chicago Academy of Sciences and to its members individually for the entertainment given to our Society and its members during the meeting.

Mr. Weed moved that Prof. H. T. Fernald be elected member of the Committee on Nomenclature to serve for three years. Seconded by Bradley. Carried.

Mr. Bradley moved that Prof. T. D. A. Cockerell be elected a member of this Committee to serve for two years. Seconded by Mr. Ruggles. Carried.

Dr. Smith moved that Dr. Felt be elected member to serve for one year. Seconded by Prof. Washburn. Carried.

The meeting discussed informally several Entomological topics while awaiting the arrival of Mr. C. F. Jackson, who had a paper entitled, "Observations on the Life History and Adaptation of a new semi-aquatic Aphid." (Habits, life history and specialization of Aphis aquaticus nov. found on water thyme; many remarkable adaptations to its semi-aquatic life). [Published Ohio Naturalist, Jan., 1908.]

As Mr. Jackson did not appear the paper was read by title only and the meeting adjourned sine die.

J. CHESTER BRADLEY, Secretary-Treasurer.

During the session an exhibit of entomological specimens and materials was open for the inspection of those interested. The titles of the exhibit are given below:

Some enlarged Photographs of Fossil Insects. Chas. T. Brues. New Devices in Economic Entomology. W. E. Hinds.

Stereoscopic Pictures of Insects. Professor F. L. Washburn. Dimorph of Chaitophorus negundinis Thos. John J. Davis.

Case of Fall Webworm Moths (Hyphantria textor and H. Cunea). Showing range of Variation of the Latter; Inflated Larvæ. Henry H. Lyman.

Entomological Specimens and Equipment; Interesting Insects from Mexico, Cuba, and Indo-Australia; New Species of Dynastes, etc. Dr. G. Lagai.

Stereoscopic Photographs of Oryssidæ Taken with the Camera Attachment to the Zeiss Greenough Binocular Microscope. Mouth parts of Siricidæ. J. Chester Bradley.

Stereoscopic Photograph of a Tenebrionid Beetle Taken with an Ordinary Camera Using an Eccentric Diaphragm. C. R. Crosby and J. C. Bradley.

The portrait of Dr. Scudder which forms the frontispiece for this number, will certainly be a welcome sight to all our members whether they have had the privilege of personal acquaintance with him or not. "It was taken by a friend one summer afternoon as he sat reading on the veranda. It is the latest picture and the best."